THE GREAT YARMOUTH

URBAN AND PORT SANITARY AUTHORITY.

THE

ANNUAL REPORT

OF THE

Medical Officer of Health,

FOR 1908.

GREAT YARMOUTH:

JOHN BUCKLE, PRINTER, CENTRAL HALL, THEATRE PLAIN.

1909.

Town Hall,
Great Yarmouth,
May 27th, 1909.

To the Town Council of the County Borough of Great Yarmouth, acting as the Urban Sanitary Authority.

Mr. Mayor, and Gentlemen,

I submit my Sixth Annual Report on the vital statistics and sanitary administration of the Borough and Port of Great Yarmouth.

The death-rate from all causes in 1908 was much below the average for the previous ten years, the fall in the death-rate being very largely due to the decrease in the number of deaths from the communicable diseases, with the single exception of Influenza, a disease which caused a considerable number of deaths in the first quarter of 1908.

The death-rate as calculated and corrected by the Registrar-General was 2.0 per thousand lower than the corrected death-rate for the 76 great towns, a saving of over one hundred lives during the year.

The death-rate among infants is also well below the local average, but should be still further reduced by means of education and the judicious assistance of expectant mothers. As I stated in my last report, it is unreasonable to expect that the causes of excessive infant mortality will be removed in one or two years.

The statistics relating to the prevalence of notifiable infectious disease are satisfactory. The Smallpox Hospital was not required during the year, and there was a diminution in the number of cases admitted into the Estcourt Road Isolation Hospital.

The work of the Sanitary Department was well maintained, special attention being directed to the systematic inspection of houses throughout the Borough, and to the improvement of the Slaughter Houses.

Owing to the existence of cholera in the Baltic, the work of the Port Sanitary Authority was considerably increased during the latter part of the year, and the arrangements for dealing with the disease were specially investigated on behalf of the Local Government Board.

The organisation for the medical inspection of children in the elementary schools has necessitated the appointment of an Assistant Medical Officer of Health and Health Visitors, whose assistance has been most valuable in the general work of the Health Department, as well as in the work undertaken by the Education Authority.

Owing to the re-organisation of the Meteorological Station in Great Yarmouth, I am, for the first time, able to include statistical tables as to the weather conditions prevailing during the year.

I am, Mr. Mayor, and Gentlemen,

Your obedient Servant,

H. W. BEACH,

Medical Officer of Health.

Statistical Summary for the Year.

GENERAL STATISTICS.

Area of District in acres (excluding area covered by water)	3,566
Population estimated by the Registrar-General for the middle of 1908	53,152
Number of persons to the acre	14 9
Estimated number of Inhabited Houses ..	13,040
Assessable Value of District	£246,709
Product of a Penny General District Rate (4s. in the £)	£900
Product of a Penny in all other Rates (3s. 6d. in the £)	£934
Total Revenue	£170,666
Net indebtedness	£420,201

VITAL STATISTICS.

Births registered during 1908 (decennial average for the years 1898-1907, 1,428)	1,422
Birth Rate (decennial average 27.6)	26.8

Total number of Deaths registered during 1908 (including deaths of residents in the port) ..	825
Deaths of Non-Residents in Public Institutions	36
Net Deaths of Residents (decennial average 915)	789
Net Death Rate (decennial average 17.68) ..	14.84
Death Rate as calculated and corrected by the Registrar-General (76 great towns of England, 15.8)	13.76
Deaths of Infants under one year (average 229) ..	178
Infantile Death Rate per thousand births registered (average 160)	125
Death rate from Zymotic Diseases (average 2.5)	1.1
Total Rainfall (average 25.3 inches) ..	22.5
Mean Temperature (average 48.1°)	48.7°
Hours of Sunshine recorded	1,712

PHYSICAL FEATURES OF THE DISTRICT.

The district is divided into two portions by the Haven and the river Bure. The portion lying to the east of the Haven and the river Bure contains 1,374 acres, and is very flat, only a very small part being more than 25 feet above sea level. It comprises the old town, situated within the area originally enclosed by the town walls, and the town outside the walls, which has sprung up within the last century. The subsoil in the greater part of the built-on area in this district consists of blown-sand, clean and pure, outside the limits of the old walls, but polluted by over eight hundred years of continuous occupation within the walls.

The portion of the district to the west of the Haven, comprising Gorleston, Southtown and Cobholm, contains 2,148 acres. The subsoil is alluvial, and almost flat in the northern half of this district, but rises towards the south, until at Gorleston the ground is more than 50 feet above sea level, the subsoil in this part consisting of glacial deposit.

There is also an out-lying portion of the district at Runham Vauxhall, containing only 44 acres of low-lying alluvial ground.

POPULATION.

The population of the Borough, as estimated by the Registrar-General, is 53,152. The populations of the various districts being:—

Northern District	..	..	19,830
Southern District	..	..	15,312
Gorleston and Southtown		..	17,391
Runham Vauxhall	..	..	619

The population is almost certainly underestimated, but the Registrar-General's estimate must be adopted for the purposes of this report. Furthermore these figures refer to the April population, taking no account of the greatly increased population in the summer and autumn, a fact which must be taken into consideration if fair comparisons are to be made between the vital statistics of Great Yarmouth and those of other towns.

BIRTHS IN 1908.

The number of births registered during the year was 1422, producing a Birth Rate of only 26.8 per thousand of the estimated population. This rate is not only 0.8 lower than the local average for the past ten years, but is also 0.3 lower than the average for the 76 great towns. The Births assigned to the different districts were :—

Northern District	...	...	525
Southern District	...	...	400
Gorleston and Southtown		...	481
Runham Vauxhall	...	...	16

Eighty-nine births, being 6.2 per cent. of the total number, were registered as illegitimate, and are included in the totals.

MORTALITY IN 1908.

The total number of Deaths registered in the Borough was 825, but of this number 36 were non-residents dying in Public Institutions. Deducting the 36 deaths of non-residents, the net total of deaths during 1908 was 789, producing a crude death rate of 14.84 per thousand of the estimated population.

Death Rate in 1908, compared with rates for previous years.

The death-rate in 1908 was 2.8 per thousand below the local average for the previous ten years, being, with one single exception in 1907, the lowest death-rate on record in Great Yarmouth. The decreased death-rate is again largely due to a diminution in the number of deaths from the zymotic diseases. The greatest reduction has occurred in deaths from diarrhœal diseases.

Ages at Death.

Of the total number of deaths 65 per cent. occurred during infancy or old age, 3 per cent. occurred during school-age (5-15), and the remaining 32 per cent. during the fifty years of working life (15-65).

Adopting the figures of the Registrar-General as a means of comparing Great Yarmouth with the 76 towns in the matter of relative mortality at different ages, Great Yarmouth is twentieth in the list for persons aged over 60 years, tenth for persons between the ages of 1 and 60, and thirty-second for children under one year.

Infantile Mortality.

One hundred and seventy-eight children died before reaching the age of twelve months, equivalent to an infantile death-rate of 125 per thousand births registered during the year.

The infantile death-rate is 35 per thousand under the average for the past ten years, and is 3 per thousand under the average for the 76 great towns.

The influence of illegitimacy on infantile mortality was most marked, the death-rate among illegitimate infants being 281 per thousand, as compared to a death-rate of 115 among children registered as legitimate. It is probable that even this tremendous death-rate does not give the true figures for illegitimate mortality, as there is no doubt that false registrations are possible under the present system, under which Registrars are unable to check the statements of the informants. During 1908 two cases were discovered where children had been falsely registered as legitimate, both children dying within a few months of birth. No doubt similar cases occurred, which were not brought to light, with the result that the illegitimate death-rate is depressed at the expense of the mortality among legitimate children.

Table I. on page 10 presents a classification of the certified causes of deaths of infants at various ages under twelve months.

TABLE I.

INFANTILE MORTALITY DURING THE YEAR 1908.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes.	Certified	46	12	6	4	68	20	26	13	9	8	7	8	7	2	6	4	178
	Uncertified	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Common Infectious Diseases	Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Chicken-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Diphtheria : Croup ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Whooping Cough ...	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	2
Diarrhœal Diseases	Diarrhœa, all forms ...	—	1	1	—	—	2	4	3	1	1	—	1	2	—	2	—	18
	Enteritis (*not tuberculous*) ...	—	—	—	1	—	3	1	1	—	1	2	—	—	—	1	—	10
	Gastritis, Gastro-intestinal Catarrh	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1
Wasting Diseases.	Premature Birth ...	30	4	4	—	—	6	1	2	—	—	—	—	—	—	—	—	47
	Congenital Defects ...	4	3	1	2	—	3	3	3	1	—	1	1	—	—	1	—	23
	Injury at Birth ...	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
	Want of Breast-milk ...	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1
	Atrophy, Debility Marasmus	4	2	—	1	—	5	5	—	1	—	—	—	—	1	—	1	20
Tuberculous Diseases.	Tuberculous Meningitis ...	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	2
	Tuberculous Peritonitis : Tabes Mesenterica	—	—	—	—	—	—	1	1	—	—	2	—	—	—	—	1	5
	Other Tuberculous Diseases	—	—	—	—	—	1	3	1	3	2	—	—	2	—	—	—	12
	Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Syphilis	1	—	—	—	—	—	2	—	1	—	1	—	—	—	—	1	6
	Rickets	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	2
	Meningitis (*not Tuberculous*)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Convulsions	1	1	—	—	—	—	—	1	—	—	—	—	2	—	1	1	7
	Bronchitis	—	—	—	—	—	—	2	1	—	2	—	1	—	—	—	—	6
	Other Respiratory Diseases	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1
	Pneumonia	—	—	—	—	—	—	1	—	—	2	—	1	—	—	—	—	4
	Suffocation, overlying ...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Influenza	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1
	Other Causes	2	1	—	—	—	—	1	—	2	—	—	—	—	—	—	—	6
		46	12	6	4	68	20	26	13	9	8	7	8	7	2	6	4	178

Population estimated to middle of 1908, 53,152.

Births in the year { Legitimate, 1333. / Illegitimate, 89. } Deaths in the year { Legitimate Infants, 153 / Illegitimate Infants, 25 }

Deaths from All Causes at All Ages 789.

The number of children dying at early ages was unusually large, more than a quarter of the total deaths occurring during the first week of life, and well over a third during the first month.

The principal causes of the total infantile mortality stated in percentages are:—

From Wasting Diseases	52.8
,, Diarrhœal Diseases	15.9
,, Tuberculous Diseases ..	10.7
,, Respiratory Diseases	6.2
,, Convulsions	4.0
,, Overlaid	0.6
,, Syphilis	3.4
,, Whooping-cough	1.2
,, Rickets	1.2
,, Influenza	0.6
,, Unclassified Diseases ..	3.4
	100.0

Comparisons between the rates of infantile mortality in the different districts of this Borough must be accepted with some reserve owing to the varying social conditions prevailing in the different districts, more particularly in the Row area and outside that area, but the comparisons given below are worth consideration.

Infantile death-rates per thousand births registered.

In the North District outside the Row area	127
In the North District within the Row area	152
In the South District outside the Row area	104
In the South District within the Row area	121
In the district comprising Gorleston, Southtown and Cobholm	118
In Runham Vauxhall	250*

*This rate is based on very small numbers.

The infantile death-rate is much lower than it has been during average years in the past, but it is still much higher than it should be in a population where factory labour has but a small influence on the home conditions. The seasonal influx of visitors must have some adverse influence owing to the occupation of mothers who are endeavouring to make provision for the winter months, with the additional disability of temporary overcrowding, but infantile mortality is higher in Great Yarmouth than it is in many other seaside resorts.

The housing conditions do not account for more than a small part of this comparatively high death-rate, as more than 70 per cent. of the infant mortality occurs outside the Row area, in houses which cannot be regarded as below the average of other towns.

In April, 1908, a Health Visitor was appointed, who was able to devote a part of her time to the visitation of infants. This is an advance towards the conditions obtaining in other towns, but the efforts of one official visitor during a period of eight months cannot reasonably be expected to result in any immediate reduction of the infantile mortality.

During the last eight months of the year, 1,553 visits were paid to the homes of 1,096 children; in the great majority of cases no further visits were necessary, but in several cases a succession of visits were made, and more would have been desirable had time allowed.

A considerable number of minor or temporary nuisances were discovered and reported as a consequence of these visits, and were remedied in the ordinary course by the Sanitary Department.

The result of enquiries as to the methods of infant-feeding showed that of the total number of children under six months there were the following percentages:—

Breast-fed entirely	65%
Breast-fed partially	17%
Cows' milk mainly	8%
Condensed milk mainly	6%
Patent foods and mixed diet ..	4%

It is interesting to compare the corresponding figures for children of similar ages who died of diarrhœal diseases :—

Breast-fed entirely	...	18%
Breast-fed partially	...	30%
Cows' milk mainly	...	30%
Condensed milk mainly	...	13%
Patent foods and mixed diet		9%

The figures on which the last table is based are small, and the results must be accepted with some reserve, but the comparison between the two tables is strong confirmation of the reiterated statement that the natural food for infants is the safest, as it certainly is the cheapest and most convenient in the average household.

Deaths in Public Institutions.

One hundred and eighty-eight deaths occurred in Public Institutions, distributed as follows :—

Workhouse Infirmary	...	106
General Hospital	...	43
Isolation Hospital	...	8
Gorleston Cottage Hospital	...	6
Royal Naval Hospital	...	25

Excluding the deaths of 36 non-residents, the number of residents dying in Public Institutions was 152, a number somewhat above the average for previous years.

TABLE II.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1908 AND PREVIOUS YEARS.

Year.	Population estimated to middle of each year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Nett Deaths at all Ages belonging to the District.	
				Under 1 year of age.		At all Ages.					
		No.	Rate.*	No.	Rate per 1000 Births registered.	No.	Rate *			No.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12
1898	50,763	1412	27.85	306	216	1124	22.14	164	37	1087	21.41
1899	50,963	1479	29.02	251	169	981	19.24	173	72	909	17.83
1900	51,165	1396	27.28	277	198	1135	22.18	205	60	1075	21.01
1901	51,367	1469	28.60	244	165	950	17.9	194	18	932	18.10
1902	51,610	1406	27.24	204	145	893	17.3	185	41	852	16.50
1903	51,851	1426	27.5	173	121	960	18.51	244	36	924	17.82
1904	52,099	1453	27.9	240	165	927	17.6	169	40	887	17.02
1905	52,353	1437	27.4	185	128	845	16.1	165	43	802	15.3
1906	52,613	1422	27.0	230	161	936	17.7	165	33	903	17.1
1907	52,879	1387	26.2	181	130	797	15.2	153	21	776	14.67
Averages for Years 1898—1907.	51,766	1428	27.6	229	160	945	18.4	181	40	915	17.68
1908	53,152	1422	26.7	178	125	825	15.5	188	36	789	14.84

*Rates in columns 4, 8, and 12, calculated per 1,000 of estimated population.

NOTE.—The deaths included in column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in column 11 are the number in column 7, corrected by the substraction of the number in column 10.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there.

The "Public Institutions" taken into account for the purpose of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses, and lunatic asylums.

Area of District in acres (exclusive of area covered by water) - 3566

Total population at all ages ...	51,316	At Census of 1901
Number of inhabited houses ...	11,821	
Average number of persons per house	4.3	

TABLE III.

VITAL STATISTICS OF THE SEPARATE LOCALITIES IN 1908 AND PREVIOUS YEARS.

Year.	Northern District.				Southern District.				Gorleston and Southtown.				Runham Vauxhall.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
1898	19,857	516	505	115	15,619	420	335	84	14,678	458	270	103	609	18	14	4
1899	19,853	491	442	95	15,583	517	328	78	14,917	455	208	76	610	16	3	2
1900	19,848	486	523	121	15,550	442	298	79	15,156	444	245	74	611	24	9	3
1901	19,844	529	402	98	15,518	463	286	71	15,393	461	232	70	612	16	12	5
1902	19,839	506	359	72	15,491	431	253	63	15,677	451	236	68	613	18	4	1
1903	19,835	496	383	62	15,468	431	309	57	15,934	471	227	54	614	28	5	0
1904	19,830	556	366	86	15,435	409	240	71	16,219	466	272	78	615	22	9	5
1905	19,826	539	379	82	15,402	442	229	51	16,508	427	184	47	617	29	10	5
1906	19,824	517	399	91	15,372	407	251	62	16,799	474	239	72	618	24	14	5
1907	19,826	515	351	59	15,340	419	206	60	17,093	430	210	58	620	23	9	4
Averages of Years, 1898—1907.	19,838	515	410	88	15,477	438	273	67	15,837	453	232	70	613	21	8	3.4
1908	19,830	525	391	72	15,321	400	164	45	17,391	481	223	57	619	16	11	4

NOTE—Deaths of residents occurring in public institutions beyond the district are included in Sub-columns *c* of this Table, and those of non-residents registered in public institutions in the district excluded. (See note on Table II as to meaning of terms "resident" and "non-resident."

TABLE IV.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1908

Causes of Death.	Deaths in or belonging to whole District at subjoined Ages.							Deaths in or belonging to Localities (at all Ages).				Total Deaths in Public Institutions in District
	All ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25	25 and under 65	65 & upwards	Northern.	Southern.	Gorleston and Southtown.	Runham Vauxhall.	
Small Pox	—	—	—	—	—	—	—	—	—	—	—	—
Measles	4	—	4	—	—	—	—	1	3	—	—	—
Scarlet Fever	1	—	—	1	—	—	—	1	—	—	—	—
Whooping-cough	6	2	4	—	—	—	—	2	1	3	—	—
Diphtheria & Membranous Croup	6	—	2	4	—	—	—	—	2	4	—	4
Croup	—	—	—	—	—	—	—	—	—	—	—	—
Fever — Typhus	—	—	—	—	—	—	—	—	—	—	—	—
Fever — Enteric	3	—	—	—	1	2	—	2	1	—	—	4
Fever — Other continued	—	—	—	—	—	—	—	—	—	—	—	—
Epidemic Influenza	31	1	1	1	—	10	18	17	2	11	1	8
Cholera	—	—	—	—	—	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—
Diarrhœa	37	29	4	—	—	1	3	18	9	10	—	4
Enteritis	1	—	—	—	—	—	1	1	—	—	—	—
Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	1	—	—	—	—	—	1	—	1	—	—	—
Other Septic Diseases	17	—	1	3	—	5	8	9	6	2	—	9
Phthisis (Pulmonary Tuberculosis)	47	—	—	—	6	36	5	27	8	12	—	8
Other Tubercular Diseases	31	19	2	5	1	3	1	16	6	8	1	7
Cancer, Malignant Disease	40	—	—	—	—	29	11	22	5	13	—	7
Bronchitis	61	6	7	—	1	12	35	30	16	15	—	8
Pneumonia	21	4	4	1	—	8	4	12	4	5	—	8
Pleurisy	1	—	—	—	—	1	—	—	1	—	—	1
Other Diseases of Respiratory Organs	8	1	2	—	1	2	2	5	—	3	—	—
Alcoholism / Cirrhosis of Liver	18	—	—	—	—	14	4	9	3	5	1	2
Venereal Diseases	9	6	—	—	—	3	—	4	2	1	2	2
Premature Birth	47	47	—	—	—	—	—	17	13	17	—	—
Diseases & Accidents of Parturition	3	—	—	—	—	3	—	1	1	1	—	1
Heart Diseases	111	—	—	—	—	45	66	61	22	27	1	24
Accidents	21	1	1	2	1	13	3	10	6	4	1	10
Suicides	5	—	—	—	—	5	—	2	1	2	—	3
Congenital Defects and Debility	34	33	1	—	—	—	—	15	11	7	1	4
Diseases of Blood-vessels	80	—	—	—	—	22	58	38	17	25	—	20
Old Age	63	—	—	—	—	—	63	36	3	22	2	14
All other causes	82	29	1	4	1	30	17	35	20	26	1	40
All causes	789	178	34	21	12	244	300	391	164	223	11	188

THE PRINCIPAL CAUSES OF DEATH IN 1908.

(As tabulated in Table IV.)

The Zymotic Diseases.

The Zymotic Death-rate amounts to 1.1 per thousand of the estimated population. This rate is less than half the local average for the last ten years, and is below the average for the 76 great towns.

The following table shows the mortality from the seven diseases from which the Zymotic Death-rate is calculated :—

A.—Zymotic Diseases not notifiable during life.

	1908	1907	1906	1905	1904	Decennial Mean. 1898 to 1907
Measles	**4**	1	33	0	12	16.6
Whooping Cough	**6**	21	2	4	33	16.0
Diarrhœa	**37**	31	96	33	53	52.7

B.—Zymotic Diseases. (All known cases notified.)

Small-pox	**0**	0	0	0	0	0.1
Scarlet Fever	**1**	6	4	1	3	6.3
Diphtheria	**6**	5	7	2	24	27.3
Typhoid and Continued Fever	**3**	5	7	6	4	12.3

Diarrhœa.

The deaths certified as due to Diarrhœa, Zymotic Enteritis and other diarrhœal diseases amounted to 37, including 11 deaths occurring in children under one year which were certified to be due to other forms of Enteritis.

Of the total number of persons who died of diarrhœal diseases during the year, 29 were under one year, four were between the ages of one year and five, one was between the ages of 25 and 65, and three were over 65 years of age.

In 33 cases enquiries were made as to the surroundings and circumstances of the infants who died from Diarrhœa or Enteritis, with the following results:—

Age at death.—Under one month	..	4
One to three months	..	11
Three to six months	..	8
Six to nine months	..	4
Nine to twelve months	..	3
Over twelve months	..	3

Method of feeding.	Under 6 months.	Over 6 months.
Breast fed, solely	4	1
Breast and other food	7	0
Cows' milk, mainly	7	5
Condensed milk, mainly	3	3
Patent foods and mixed diet	2	1
Totals	23	10

Sanitary Defects were found in three houses.

Position of Food Store.—With external ventilation, 7; in living room or ventilated into living room, 26.

Water supply.—All from the Waterworks.

Employment of Mothers.—A considerable number of the mothers of these children took in lodgers, but only one mother had to leave her infant while she went out to her work.

Measles.

The Borough was practically free from cases of this disease, for a period of over 18 months, until last November. Since that time several hundred cases have been reported by the heads of elementary schools, and the epidemic was still in progress at the end of the year. The infants' departments of seven schools were closed owing to the epidemic, which appeared to be accompanied by an unusually small case-mortality, as judging from the number of known cases, the

proportion of deaths to children attacked must have been considerably under one per cent. Measles is not one of the notifiable diseases except through the educational authorities, and owing to the fact that only a very small proportion of the cases come under medical treatment, unless for dangerous complications, it is possible that no great advantage would follow if it were made compulsorily notifiable.

Whooping-cough.

Six deaths were ascribed to this disease during the year, a number considerably under the average. All the deaths occurred in children under five years of age, two being under twelve months.

Deaths from the Notifiable Infectious Diseases.

There were 10 deaths from this group of diseases, comprising small-pox, scarlet fever, diphtheria and typhoid fever, less than a quarter of the average for the previous 10 years. The detailed statistics of the notifiable diseases are more fully considered at pages 21-26.

Tuberculous Diseases.

Tuberculous Diseases caused 78 deaths during the year, of these 47 were certified to be due to Tuberculosis of the Lungs.

In order to emphasise the importance of the age-distribution of the deaths from Tuberculosis of the Lungs, a table has been prepared, as in the reports for the past four years, by means of which a comparison may be made between the percentage of deaths due to this disease at different age periods, and the percentage of the total deaths due to the notifiable diseases, which include Scarlet Fever, Diptheria, Typhoid Fever and Smallpox.

	Under 1 year.	1-5.	5-15.	15-25.	25-65.	65 & over.	At all ages.
Deaths from Phthisis as a percentage of the total mortality from all causes at the same ages.	0.0	0.0	0.0	50.0	14.7	1.6	6.0
Deaths from the notifiable diseases as a similar percentage	0.0	5.9	23.8	8.3	0.9	0.0	1.3

Thirty-nine deaths from Consumption occurred in private houses, only eight residents dying in public institutions. Disinfection was urged in all cases where death occurred in a dwelling-house, and the rooms, bedding and clothing were disinfected in the majority of the cases.

With the exception of the cases under the care of the Guardians, Tuberculosis of the Lungs is not a notifiable disease in this Borough, and no provision has been made for special treatment except in the Infirmary. In several towns patients are now treated in vacant wards of ordinary isolation hospitals, but this is hardly possible in the local isolation hospital. Owing to the expiry of the lease of the ground on which the smallpox hospital stands, permanent buildings must shortly be erected on another site. These buildings could be made suitable for the accommodation of consumptive patients at a very small extra cost, so that a dozen patients might be treated while the hospital is unoccupied by smallpox patients, as it frequently is for years at a time.

Respiratory Diseases.

The number of deaths from Respiratory Diseases (excluding Phthisis) was about the average for the past ten years, although the number of deaths from Influenza was higher than it has been for the past nine years.

Other Important Causes of Death.

Cancer caused 40 deaths, Heart Disease caused 111, Accidents caused 21, and 18 were certified to be due to Alcoholism or Cirrhosis of the Liver.

TABLE V.

Cases of Infectious Disease notified during the Year 1908.

Notifiable Disease.	Cases notified in whole District.							Total Cases Notified in each Locality.					No. of Cases Removed to Hospital from each Locality.					
	At all Ages.	At Ages—Years.						Northern District,	Southern District.	Gorleston and Southtown.	Runham Vauxhall.	Port.	Northern District.	Southern District.	Gorleston and Southtown.	Runham Vauxhall	Port.	Total Cases Removed to Hospital.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.											
Small-pox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria Membranous Croup	68	—	14	41	9	4	—	18	14	34	1	1	11	14	24	1	1	51
Erysipelas ...	45	3	2	3	5	27	5	18	14	12	1	—	—	—	—	—	—	—
Scarlet Fever ...	210	2	40	138	15	15	—	80	28	102	—	—	64	26	70	—	—	160
Typhus Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever ...	35	—	3	14	7	11	—	16	6	9	2	2	10	5	4	2	2	23
Relapsing Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	1	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals ...	359	5	59	196	36	58	5	132	62	158	4	3	85	45	98	3	3	234

THE NOTIFIABLE INFECTIOUS DISEASES.

The table on page 21 presents an analysis of all the notifications received during 1908, classified according to disease, age and locality, with the number of patients removed to the Isolation Hospital.

In the following table a comparison is made between the number of notifications in 1908 and in the previous ten years.

Year.	Smallpox	Scarlet Fever.	Typhoid Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Total.
1898	0	178	289	167	42	1	677
1899	9	138	131	245	39	3	565
1900	0	42	130	203	37	4	416
1901	1	47	87	298	26	1	460
1902	2	117	38	228	42	4	431
1903	0	408	28	320	92	4	852
1904	0	140	64	162	52	1	419
1905	0	114	38	33	36	3	224
1906	3	148	45	67	39	6	308
1907	0	277	37	74	35	3	426
Average for ten years 1898-1907	1.5	161	89	180	44	3	478
1908	**0**	**210**	**35**	**68**	**45**	**1**	**359**

Smallpox.

No case of smallpox was notified during the year.

Scarlet Fever.

Two hundred and ten cases of scarlet fever were notified in 1908, one case ending fatally. The number of notifications was above the average for the past ten years, but the great majority of the cases were extremely mild, the ratio of deaths to notified cases being less than a half per cent.

Twelve cases were not notified until the disease had been present for more than a week, and fifteen cases after more than a fortnight. The majority of these cases of delayed notification were discovered when enquiries were being made into the origin of other cases of greater severity, the "missed" cases being, for the most part, extremely mild in character.

Two schools were closed for a time on account of infection among the children, and the schools were thoroughly disinfected with the formalin spray, with satisfactory results in both cases.

Seventy-six per cent. of the total number of cases notified were removed to the Isolation Hospital.

The monthly incidence of the disease is shown in the following table:—

Month.	Total Number.	Northern District.	Southern District.	Gorleston and Southtown.	No. of Removals to Hospital.
January	34	7	2	25	17
February	26	12	1	13	18
March	27	16	2	9	23
April	25	5	0	20	17
May	21	11	2	8	18
June	6	0	3	3	6
July	15	7	4	4	14
August	8	3	4	1	7
September	10	2	5	3	8
October	13	6	1	6	12
November	11	4	2	5	9
December	14	7	2	5	11
Totals	210	80	28	102	160

Typhoid Fever.

Thirty-five cases of this disease were notified in 1908, considerably less than half the average in the previous 10 years. These numbers include two non-residents who came into the district for treatment; these patients had eaten mussels and fallen ill in a neighbouring town, both suffering from very severe attacks of the disease, and both ultimately dying.

Of the remaining patients, two had contracted the disease outside the Borough, two patients were living in houses with very defective drainage, and in eight cases there was a definite history of the consumption of mussels within the possible incubation period of the disease.

The danger of eating mussels dredged from the haven has been recognised and brought to the attention of the public at frequent intervals during the past 10 years. The sale of such

mussels for human food is of course prohibited, and mussel-dredging is very largely a thing of the past; but it is impossible to entirely prevent mussel-dredging for "bait," hence the occurrence of a certain number of the cases of typhoid fever every year.

Dr. Bulstrode thoroughly inspected the so-called mussel-lays in the haven last year, this inspection being one of many others made on behalf of the Local Government Board. The entire prohibition of all mussel-dredging in polluted areas is the only practicable method of prohibiting the consumption of such mussels for human food, as it is impossible to follow up mussels which have been dredged nominally for bait.

Sixty-three per cent. of the total number of cases notified were removed to the Isolation Hospital. Bacteriological investigations (kindly undertaken by Dr. Savage) showed that one of these patients was probably suffering from paratyphoid infection only, and one other patient appeared to have both paratyphoid fever and typhoid fever at the same time. The remaining patients suffered from the ordinary form of the disease.

The monthly incidence of the disease is shown in the following table:—

Month.	Total Number.	Northern District.	Southern District.	Gorleston and Southtown.	Runham Vauxhall.	No. of Removals to Hospital.
January	3	1	1	1	—	2
February	1	—	—	1	—	1
March	6	2	—	2	2	4
April	3	2	1	—	—	3
May	2	1	1	—	—	2
June	1	—	—	1	—	1
July	2	—	2	—	—	1
August	4	1	1	2	—	2
September	2	1	—	1	—	—
October	2	2	—	—	—	1
November	6*	3	—	1	—	5*
December	3	3	—	—	—	1
Totals	35	16	6	9	2	23

*Including two patients removed from vessels in the port.

Diphtheria.

Sixty-five cases of diphtheria were notified during the year, a little over a third of the average number for the previous ten years, the number of fatal cases being less than a quarter of the average.

In a pleasure resort like Great Yarmouth, the importation of cases of diphtheria must be anticipated every summer, in fact two of the fatal cases last year occurred in visitors who had contracted the disease elsewhere and did not come under treatment until too late.

With very few exceptions all the cases, whether nursed at home or in the Isolation Hospital, were examined bacteriologically in order to confirm the clinical diagnosis, 162 specimens being examined in the Municipal Laboratory last year for this purpose alone. In addition, 275 bacteriological examinations were made in order to determine whether patients were fit for discharge from isolation, whether from their own homes or from the hospital. Bacteriological examinations were also made in 48 apparently healthy persons who had been in contact with cases of the disease, with the result that three cases were found in which these apparently healthy persons were harbouring the bacilli of diphtheria in their throats.

A striking illustration of the utility of bacteriological examination occurred last year in the case of a child who was seeking admission into a Convalescent Home; as she had been found to be harbouring diphtheria bacilli on a previous occasion, her admission was delayed until she could be proved free, and it was found that she still harboured the germs in her throat, and she was naturally excluded from the home. This was only an isolated instance, but the advantage derived from the systematic use of bacteriological methods in connection with the control of diphtheria is well shown by comparing the statistics for the five years preceding, and succeeding the spring of 1904, when systematic bacteriological work was commenced in the Borough. During the first period the annual number of deaths from diphtheria ranged between 17 and 44, averaging 28 per annum; during the latter period the number of deaths has never exceeded seven in any one year.

Seventy-five per cent. of all the notified cases of diphtheria were removed to the Isolation Hospital.

The incidence of the disease is shown in the following table:—

Month	Total for Month in 1908.	Northern District.	Southern District.	Gorleston and Southtown.	Runham Vauxhall.	No. of Removals to Hospital.
January	18	2	3	12	1	11
February	5	3	—	2	—	2
March	4	2	1	1	—	4
April	2	2	—	—	—	1
May	3	1	2	—	—	2
June	—	—	—	—	—	—
July	12*	1	3	7	—	12*
August	7	1	5	1	—	6
September	3	2	—	1	—	2
October	1	—	—	1	—	1
November	6	2	—	4	—	4
December	7	2	—	5	—	6
Totals	68	18	14	34	1	51

*Including one patient removed from a vessel in the port.

Puerperal Fever.

Only one non-fatal case of this disease was notified.

Erysipelas.

Forty cases of erysipelas were notified, a little above the average number.

The Isolation Hospitals.

The Gorleston Isolation Hospital was not opened during the year, as it is reserved for the isolation of cases of smallpox.

The Estcourt Road Hospital afforded accommodation to over 74 per cent. of the total number of cases of Scarlet Fever, Diphtheria and Typhoid Fever which were notified during the year.

ADMISSIONS, DEATHS AND DISCHARGES AT THE ESTCOURT ROAD HOSPITAL.

	Scarlet Fever.	Enteric Fever.	Diphtheria.	Totals.
Remaining on January 1st, 1908 ...	32	—	15	47
Admitted during 1908 ...	161	22	51	234
Died in Hospital ...	—	4	4	8
Discharged during 1908 ...	171	16	55	242
Remaining on December 31st, 1908 ...	22	2	7	31

ADMISSIONS INTO THE ESTCOURT ROAD HOSPITAL IN EACH MONTH OF 1908.

	Scarlet Fever.	Enteric Fever.	Diphtheria.	Totals.
January ...	18	2	10	30
February ...	17	1	3	21
March ...	24	4	4	32
April ...	16	3	1	20
May ...	19	2	2	23
June ...	6	1	—	7
July ...	13	1	12	26
August ...	8	2	6	16
September ...	8	0	2	10
October ...	12	0	1	13
November ...	9	6	4	19
December ...	11	0	6	17
Totals	161	22	51	234

The average period of detention in Hospital for each case completed during the year was :—

For Scarlet Fever	...	55 days
For Diphtheria	...	42 ,,
For Typhoid Fever	...	53 ,,

The number of patients removed to the Hospital in proportion to the number of notified cases of the different infectious diseases was :—

For Scarlet Fever	...	76 per cent.
For Diphtheria	...	75 ,, ,,
For Typhoid Fever	...	63 ,, ,,

Disinfection.

The following articles were passed through the steam disinfector at the Hospital :—

Beds	211	Counterpanes	328
Pillows	675	Mattresses	138
Bolsters	237	Clothing	1790
Slips	721	Carpets	26
Sheets	485	Rugs	63
Hangings	10	Various	323
Blankets	750		
		Total ...	5757

410 Rooms were disinfected with formalin vapour.

The Municipal Laboratory.

Over 500 bacteriological examinations were carried out in the laboratory in 1908. The principal use of the bacteriological examinations was in connection with cases of Diphtheria, the results of investigations for diphtheria bacilli being as follows :

	In cases of Diphtheria.	In "contacts" of Diphtheria Patients.	Discharge.	Totals.
Bacilli found	38	3	28	69
Bacilli not found	124	45	247	416
Totals	162	48	275	485

The value of bacteriological examinations in cases of diphtheria is now fully recognised, and the work in the laboratory is an important part of the routine work of the Health Department.

Tests for agglutination in cases of suspected typhoid and paratyphoid fever were not carried out in the laboratory during 1908, as the work was kindly undertaken by Dr. Savage, as part of a research on which he is engaged on behalf of the Local Government Board.

One hundred and fifty-six specimens of hair were examined for the fungus of ringworm in connection with the medical inspection of children in the elementary schools. This, also, is important work, which is now a part of the routine work in the laboratory.

MIDWIVES' ACT, 1902.

Five registered midwives are practising in the Borough. All these midwives are on the register of the Central Midwives' Board in virtue of being in practice previous to the passing of the Act. They attended 237 confinements, with no maternal deaths, the labours resulting in 236 living children and six still-births. Medical assistance was called for on three occasions only, a very small number, taking into consideration the number of confinements attended. The exact number of confinements attended by unregistered midwives and "handy women" is not available, but it is estimated to be at least 300. This practice is permitted until April, 1910, when all practice by unregistered women will be prohibited under penalty.

Sanitary Administration during 1908.

The Report of the Chief Sanitary Inspector (Mr. Hassall), shows the number of inspections made by himself and the District Inspectors, with the results of the inspections and the measures adopted for the remedy of the defects discovered.

HOUSING ACCOMMODATION.

The accommodation for the labouring classes is adequate, so far as the number of houses is concerned, and although many of the older dwellings are deficient in air and light, owing to their curious arrangement in Rows, the proportion of back-to-back houses is small and multiple tenancies are uncommon, single room tenancies being extremely rare, less than one-twelfth of the usual average in urban areas. In addition to this, no cellar-dwellings are in occupation at the present time. Systematic house-to-house inspection has led to considerable improvement in the condition of the older houses, so far as they can be improved under present conditions, and there has been a great improvement in the type of house available for the labouring classes, owing to the development of the town to the north, and also owing to the extensive building operations in Gorleston and Southtown during recent years.

The majority of the newly erected houses are, of course, more suitable for artisans than for the casual labourers who still have to inhabit the older and cheaper houses, especially in the Rows, but as these houses have been built under modern conditions as regards air space, light and construction, they tend to improve the accommodation generally available, and their erection has also had an indirect effect by diminishing overcrowding in the older houses.

At the last census in 1901 only 11,821 inhabited houses were enumerated in the Borough, since that date 1431 dwelling-houses have been built, so that the available accommodation has increased by more than twelve per cent., while the estimated population has increased by less than four per cent.

The situation of the newly-erected houses is shown in the following table which has been prepared by the Borough Surveyor :—

NEW DWELLING-HOUSES COMPLETED DURING THE EIGHT YEARS ENDING APRIL 1st, 1909.

Yarmouth—North of Regent Street	693	
,, South of Regent Street	31	
Cobholm and Southtown to Alpha Road	268	
Gorleston—South of Alpha Road	439	
Total for the Borough	1431	Houses.

During the year a portion of the North Denes has been laid out as building land under the conditions of a garden suburb. This is an important step in the direction of proper town planning, and indicates a great change in public opinion during the past twenty-five years, as the adjacent Corporation estate was laid out to accommodate from 40 to 44 houses per acre, whereas there will not be more than from five to nine houses per acre on the present estate, the area covered by buildings on the old estate being five-eights of the whole site, while the corresponding fraction on the garden suburb will be from one-fifth to one-third. Although the houses on this particular estate will be too large for occupation by the working classes, its planning marks a great advance on any previous scheme for the development of the Corporation estates, and it will tend to the more careful consideration of future plans for the housing of the working classes. The necessity for further legislation is shown by the fact that it is possible to compress sixty houses on one acre under the present building bye-laws.

The systematic house-to-house visitation was continued during the year, and 1,868 houses were inspected, in addition to the houses inspected on account of special complaints and the occurrence of disease. This systematic inspection is essential, as it results in the discovery and remedy of many unsuspected defects.

Part II. of the Housing of the Working Classes Act of 1890, relating to the condemnation of houses unfit for occupation, has been put in force on four occasions during the past year, three tenements being closed by order of the Magistrates. No scheme under Parts I. & III. of the same Act, relating to unhealthy areas and lodging houses, was brought forward, but twelve houses have been provided in past years under the Corporation Act of 1897.

REFUSE COLLECTION AND DISPOSAL.

The collection of house refuse is carried out by the Corporation, in four-fifths of the Borough by Corporation employees, and by a contractor in the remaining fifth.

Refuse is collected twice weekly during the winter, and at least three times a week during the summer months. In certain areas, where a very large amount of house refuse is produced, a daily collection is made during the height of the visiting season. From twelve to twenty horses and carts are employed in this work, a daily average of sixty loads of refuse being burnt in the destructor to the north of the town. The destructor (Manlove & Alliott's) consists of ten cells, fed from an overhead tipping-platform, reached by an inclined plane, each cell having a normal burning capacity of seven loads of refuse per day.

The house refuse from the Gorleston District is collected by a contractor on similar lines as to frequency of collection. It is not burnt, but tipped on part of a large field just beyond the Borough boundary, far removed from any human habitation.

The collection of stable litter and manure is not at present undertaken by the Corporation. Special attention has been directed to the frequent and adequate removal of stable refuse during the past summer, as it has been proved that such refuse is the principal, if not the only important breeding ground of house flies. The disgusting and dangerous nuisance caused by house flies can be almost entirely abated by the thorough removal of stable refuse, and it is most important that the local bye-laws on this subject should be strictly enforced.

THE SLAUGHTER HOUSES.

During the year two slaughter houses were closed as they were quite unfit for use, and one was opened under a yearly license, so that the total number at the end of 1908 was twenty-four. Thirteen of these slaughter houses are situated on either side of Slaughter House Road, of the remainder, four are near to, but not actually in, the same road, two are in Cobholm, three in Gorleston, and two in Runham Vauxhall. The slaughter houses in the Slaughter House Road occupy sites assigned by the Corporation considerably over two hundred years ago, and their continued existence in what is now a densely populated area has been a subject of discussion for the past thirty years. Indeed, in 1900, the consent of the Local Government Board was obtained to a scheme for the construction of a public abattoir outside the town, but for various reasons this scheme was not carried out.

Owing to an application for a license for a new private slaughter-house, the question of providing a public abattoir was again fully discussed in 1907 and 1908, as it was fully recognised that further and better provision must be made for slaughtering, owing to the increased requirements of a greatly increased population. The undesirability of licensing private slaughter houses in various parts of the Borough was also fully recognised, and on Jan. 1st, 1908, the Health Committee passed a resolution "that in the opinion of this Committee a scheme for the construction of abattoirs should be proceeded with." This resolution was negatived two days later by the General Purposes Committee and the subject was once more shelved as it has been at intervals since 1877, when the then Medical Officer of Health reported as to the desirability of the provision of a properly appointed public abattoir where all slaughtering should be done. After the decision of the Council, all the slaughter houses in the Slaughter House Road, with two exceptions, were offered for sale, the majority changing hands at prices which sufficiently indicate the flimsy character of the buildings, indeed, the description of the majority as a "collection of rotten old sheds," would have been as applicable at the commencement of 1908 as it was thirty years ago. I am, however, glad to be able to report that five

of the ancient slaughter houses have been put into a decent state of repair during the last twelve months, following as far as possible the model of the recently licensed slaughter house which is, of course, a modern building with properly drained floors of impervious materials, the walls being lined with glazed tiles to the height of seven feet. The alterations already effected have made a considerable improvement in individual slaughter houses, and several more are being altered, but, of course, the situation of the majority of the slaughter houses is as unsatisfactory as it was in previous years.

DAIRIES, COWSHEDS AND MILK SHOPS.

In addition to the periodical inspections carried out by the Sanitary Inspectors, all the registered premises were specially inspected by Dr. Stevens during the month of August.

Twenty-five of the premises registered under the Order are milk shops solely devoted to sale of milk, the remaining premises being general shops in which the milk is of necessity exposed to dust and the emanations arising from the other goods on sale, which included the most varied articles, as examples, onions and paraffin.

The greater part of the milk supplied in the Borough is imported from other districts, especially in the summer months, when the demand fluctuates enormously owing to the requirements of the visiting population. The importation of milk is unavoidable, but is unsatisfactory, as it is often impossible to trace the source of the milk or to obtain information as to the conditions under which the milk has been produced.

ADMINISTRATION OF THE FOOD AND DRUGS ACTS.

One hundred and twenty samples were sent to the Public Analyst during the year. Of this number, 89 were samples of milk, 15 were samples of butter, and 16 were samples of various foods.

Eighty-nine samples of milk were analysed, and 20 were found to be adulterated by the addition of water or by the abstraction of a portion of the natural cream. The proportion

of adulterated samples is still high, but it is satisfactory to note that the use of preservatives has almost entirely ceased. The Magistrates take a serious view of the evils of adulterated milk, and have inflicted substantial penalties, which appear to have had the desired effect in a number of cases, especially as regards the use of that most pernicious preservative, formalin.

Seventeen vendors of impoverished milk were prosecuted and convicted, the fines inflicted varying from ten shillings to ten pounds.

The following table shows the number of samples obtained and submitted for examination, with the results of analysis :—

Article	No. of Samples submitted to the Analyst	Result of Analysis. Genuine.	Adulterated.
Milk ..	89	69	20
Butter ..	15	13	2
Demerara Sugar	2	2	0
Ice Cream ..	3	3	0
Vinegar ..	2	1	1
Lard ..	2	2	0
Margarine ..	3	3	0
Cheese ..	1	1	0
Bread ..	1	1	0
Coffee ..	2	2	0
Totals	120	97	23

The details of the adulteration found in the samples of milk, with the results of magisterial or other proceedings, are as follow :—

	Adulteration.	Proceedings.
1.	10 per cent. fat deficient	Fined £3 and £1 18s. 6d. costs.
2.	29.7 per cent. fat deficient	Fined £5 and £4 3s. 10d. costs.
3.	7 per cent. of water, and 8 per cent. of fat deficient	Fined £2 and £1 14s. 6d. costs.
4.	21 per cent. of fat deficient	Fined £3 and £2 9s. 0d. costs.
5.	6.25 per cent. of water	Fined £2 and £2 9s. 0d. costs.
6.	.07 per cent. fat deficient	Cautioned by letter from Town Clerk

	Adulteration.	Proceedings.
7.	.05 per cent. fat deficient	Cautioned by letter from Town Clerk
8.	19 per cent. fat deficient	Fined £1 and £1 18s. 6d. costs.
9.	15 per cent. fat deficient	Fined £1 and £1 17s. 6d. costs.
10.	29 per cent added water	Fined £3 and £2 11s. 0d. costs.
11.	13.5 per cent. added water and $2\frac{1}{2}$ per cent. Boric Acid	Fined £10 and £1 16s. 6d. costs.
12.	4.5 per cent. fat deficient	Cautioned by letter from Town Clerk
13.	18.25 per cent. added water	Fined £3 and £1 16s. 6d. costs.
14.	6 per cent. fat deficient	Fined £1 and £1 17s. 6d. costs.
15.	16 per cent. fat deficient	Fined 10s. and £1 17s. 6d. costs.
16.	23 per cent. fat deficient	Fined 10s. and £1 18s. 6d. costs.
17.	21.5 per cent. added water	Fined £1 and £1 15s. 6d. costs.
18.	10 per cent. fat deficient and 10 per cent. added water	Fined £1 and £4 4s. costs.
19.	14 per cent. fat deficient	Fined £1 and £2 6s. costs.
20.	16.5 per cent. added water	Fined £5 and £3 1s. costs.

Other Articles Adulterated.

Butter—

	Adulteration.	Proceedings.
21.	95 per cent. margarine	Fined £10 and £3 17s. costs.
22.	95 per cent. margarine	Fined £10 and £3 17s. costs.

Malt Vinegar—

23.	Not malt vinegar, but dilute Acetic Acid, coloured and flavoured	Fined £1 including costs.

UNSOUND FOOD SEIZED IN 1908.

Seven Crabs.

Twenty-two pounds of Strawberries

Two bags Winkles.

The Fish Inspector seized nearly 50 tons of fish at the Wharf during the year. The fish were destroyed after being formally surrendered by the owners. The particulars of the seizures are as follows:—

Date.	Description.	Estimated weight. Tons.	Cwts.	Qrs.
April 15	277 codfish	2	0	0
,, 15	1 box cod roes			3
May 4	1 trunk whitings, &c.			3
,, 20	1 bag of winkles		1	0
,, 22	stock bait		2	0
June 23	2 trunks mackerel		1	2

Date.	Description.	Estimated weight. Tons.	Cwtt.	Qrs.
June 26	1 trunk mackerel			3
,, 29	1 swill ditto		2	2
July 1	4 trunks ditto		3	0
,, 8	1 ditto			3
,, 10	1 box smoked haddocks ..			0½
,, 20	86 codfish .. .		3	0
,, 22	1 kit gurnards		1	2
,, 30	1 box smoked haddocks ..			0½
,, 31	Quantity of whitings		1	0
Aug. 3	6 boxes smoked haddocks ..			3
,, 6	9 ditto		1	1
,, 18	2 swills mackerel		4	0
,, 19	1 kit gurnards		1	2
,, 27	9 boxes smoked codling, &c. ..		1	1
Sept. 15	Quantity lemon soles			3
Oct. 1	9 swills herrings		18	0
,, 2	9 ditto		18	0
,, 3	4 ditto		8	0
,, 5	100 mackerel		1	0
,, 8	6 swills herrings		12	0
,, 9	7 ditto		14	0
,, 10	42 ditto	4	4	0
,, 15	74 ditto	7	8	0
,, 16	71 ditto	7	2	0
,, 17	9 ditto		18	0
,, 30	4 swills mackerel		8	0
,, 30	62 swills herrings	6	4	0
,, 31	1 ditto		2	0
Nov. 2	10 swills mackerel	1	0	0
,, 3	3 swills herrings		6	0
,, 14	57 ditto	5	14	0
,, 15	90 ditto	9	0	0
	Total	49	5	1

Report on Sanitary Work.

To the Medical Officer of Health.

Sir,

I have much pleasure in submitting to you my Fourteenth Annual Report of the work carried out in the above department during the year 1908. Particulars as to the nature and number of nuisances reported to the Health Committee, and dealt with by Statutory notices, also works of a similar nature, but dealt with by Preliminary notices.

I am, Sir,

Yours faithfully,

SAMUEL HASSALL.

Table A.

	Number of Visits.
Special inspections and investigations of complaints	3041
House to house inspections	1868
Visits in connection with infectious diseases ...	410
Re-inspections to ascertain the progress of Sanitary notices	6719
Bakehouse inspections	274
Common lodging-house inspections (day-time)	190
,, ,, ,, (night-time)	138
Slaughter-house and knackers' yard inspections	310
Offensive trades and marine store inspections	214
Factories, workshops and work-places inspected	490
Dairies, cowsheds and milkshops inspected ...	403
Samples of well-water submitted for analysis...	22
Samples of Food, etc., submitted for analysis...	120
Rooms disinfected after infectious disease ...	410
Schools disinfected	4
Houses, schools and workshops at which the smoke, water or chemical tests have been applied to the drains	181
Prosecutions under the Sale of Food and Drugs Acts	19
Smoke observations taken	4
Total ...	14,817

TABLE B.

During the year the following works have been carried out under Statutory and Preliminary notices :—

	Number.
Privies replaced with water closets ...	126
New drains laid	92
Drains cleared and repaired	225
Pan-container closets abolished ...	9
Pedestal closets provided	78
Earthenware gully-traps fixed ...	367
Flushing cisterns fixed to closets ...	82
Filthy houses cleansed and limewashed ...	55
Offensive accumulations removed ...	72
Nuisances from overcrowding abated ...	11
Animals and poultry removed ...	24
Water closets repaired	123
New sinks erected	120
Drains intercepted from sewers ...	94
Rainwater cisterns abolished	64
Sink waste pipes disconnected ...	56
Yards and passages concreted ...	158
Drains ventilated	148
Spouting and fall pipes provided ...	93
Cowsheds and slaughter houses limewashed ...	7
Bakehouses limewashed	29
Houses provided with Company's water ...	28
Slaughter-house closed	1
Damp courses inserted	2
Houses ventilated	6
Common lodging house overcrowded ...	1
Smoke nuisances abated	8
Dead wells and cesspools closed ...	5
Polluted wells closed	21
Houses made fit for human habitation ...	3

	Number.
Rainwater pipes disconnected from drains ...	84
Dilapidations made good	71
New urinals provided	3
Under floor spaces ventilated ...	30
Dust bins provided	35
Dykes cleansed	20
Manure bins provided	4
Miscellaneous items	138

DRAIN TESTING.

During the year 597 complaints have been received from householders and others, respecting the condition of the drains and sanitary fittings of houses, and other premises; an examination of the sanitary arrangements was made in every instance, and if necessary the smoke test was applied to the drains. This resulted in the detection of 49 defective drains, also many other nuisances. The necessary notices were served in the usual course, and in every instance the terms of the notices were complied with. The drains were also tested at all houses where cases of Typhoid Fever, Puerperal Fever or Diphtheria had occurred.

The total number of drain tests made during the year was 181, and the number of defects found was 54. Particulars as to the nature of these defects are given in the following table :—

Table C.

Showing the localities of sewer gas escapes discovered by drain testing.

	Number.
Into Breakfast rooms	3
,, Kitchens and sculleries	4
,, Bedrooms	4
,, Lobbies and other parts of houses ...	2
,, Internal w.c's.	3
,, External w.c's.	20
,, Yards and passages	36
,, Adjoining houses	2

	Number.
From defective soil pipes	3
,, defective vent shafts	3
,, heads and joints of rainwater pipes ...	3
,, around yard gullies	4
,, defective drain connections ..	22
,, defective w.c. connections ..	8
,, defective interceptors	9
,, sink wastes, etc., connected direct ...	2

FACTORIES AND WORKSHOPS INSPECTION.

Premises.	Inspections.	Written Notices.	Prosecutions.
Factories	21	3	—
Workshops (including workshop, laundries and fish curers) ...	446	28	—
Work-places (including fish-yards)	23	9	—
Home-workers' premises ...	248	12	—
	738	52	Nil.

Defects Found.

Particulars.		NUMBER OF DEFECTS. Found.	Remedied.	Number of Prosecutions.
Want of cleanliness ...		8	8	—
Want of ventilation ...		2	2	—
Want of drainage of floors ...		4	2	—
Defective drains ...		5	5	—
Offensive accumulation on premises		1	1	—
Overcrowding		1	1	—
Sanitary Accommodation	Insufficient	4	4	—
	Unsuitable or defective	22	18	—
	Not separate for sexes	3	2	—
	Totals	50	43	Nil.

Home Work.

List of out-workers received twice in the year	...	54
List of out-workers received once in the year	...	1
Total number of out-workers on lists	...	439
Addresses of out-workers forwarded to other Councils	...	89

Nuisances were found to exist on out-workers premises in 14 instances, and in each case the nuisance was abated.

Nature and Number of Registered and Unregistered Factories, Workshops and Workplaces Visited during the Year.

(excluding Out-workers' premises).

Nature.			Number of Visits.
Shoemakers	...	...	39
Tinsmiths	...	...	1
Dressmakers	...	...	20
Net chambers	...	...	16
Confectioners	...	...	1
Boat-builders	...	...	1
Millwrights	...	...	4
Bakehouses	...	...	279
Tailors	...	...	38
Sugar Boilers	...	...	2
Laundry	...	...	1
Upholsterers	...	...	5
Plumbers and Painters		...	1
Woodchopper	...	...	1
Carpenters	...	...	18
Engineers	...	...	2
Printers	...	...	2
Baking Powder Manufacturers		...	2
Fish-houses and yards		...	21
Mineral Water Works		...	10

Nature.	Number of Visits.
Cycle Engineers	2
Saddlers	1
Foundries	1
Milliners	15
Basket-maker	1
Rope-walk	2
Picture Framers	3
Cabinet-maker	1
Total	490

Number of Workshops, Etc., on the Register at the end of the Year, 1908.

Nature.	Number.
Bakehouses	100
Baking Powder Makers ...	3
Bedding Manufacturers ...	2
Boat-builders	7
Bottling Store	2
Blacksmiths	12
Builders	2
Basket-makers	5
Bone-boilers	1
Carpenters and Joiners ...	26
Confectioners	8
Coopers	9
Engineers	4
Ice Manufactory	1
Motor Engineers	2
Woodchopper	1
Printing Works	1
Carriage Builders	2
Cabinet Makers	5
Cycle Engineers	7

Nature.	Number.
Cork-cutters	2
Dressmakers	45
Fish-curers	105
Foundries	2
Hairdressers	2
Lock and Tinsmiths ...	12
Laundries	1
Milliners	13
Marine Stores	8
Netting Chambers	30
Outfitters	1
Oilskin Manufacturers ...	4
Picture Framers	3
Plumbers and Painters ...	6
Ropemakers	2
Scalemakers	1
Sailmakers	2
Tailors	1
Tripe-dressers	1
Whitesmiths	2
Woodturners	1
Wheelwrights	4
Shoemakers	65
Upholsterers	2
Ice Cream Manufacturers ...	84
Hide, Skin and Fat Merchants ...	1
Saddlers	3
Millwrights	1
Hosiers	1
Total ...	605

Sanitary Administration of the Port.

The limits of the Port of Great Yarmouth are as follow :—

(1.) The whole of the Littoral, extending from the north, from the Flood Gate at the northern boundary of the Parish of Winterton, to the south at League hole in the Parish of Corton.

(2.) The River Yare from its mouth to Breydon Water.

(3.) Breydon Water.

(4.) The River Yare from its junction with Breydon water at the south-western extremity to a straight line drawn from the southern extremity of the common boundry of the Parish of Reedham, and the detached part of the Parish of Moulton at right angles to the adjacent bank of the River, and continued thence across the River to the opposite bank.

(5.) The River Bure from Breydon Water to a straight line drawn across the River opposite a point where the common boundary of the Parishes of Great Yarmouth and Caister-next-Yarmouth meet on the east bank of the River.

(6) The River Waveney from Breydon Water southward to a straight line drawn across the River at the termination of the common boundary of the Parishes of Burgh Castle and Belton.

Together with all the waters within such limits.

The Collector of Customs kindly supplies the following information as to the traffic of the Port :—

Return of the Number and Tonnage of Vessels arriving at this Port during the Year 1908, (exclusive of Fishing Vessels).

Number of Ships.				Aggregate Tonnage.				Number of Seamen.*	
Foreign.		Coasting.		Foreign.		Coasting.		British	Foreign
Sail.	Steam	Sail.	Steam	Sail.	Steam	Sail.	Steam		
272	214	372	1025	32682	66642	34750	103948	6448	2710

*Estimate only.

The Sanitary Administration of the Port of Great Yarmouth is carried out by the Health Committee of the Corporation, with the assistance of the Medical Officer of Health of the Borough, and a special Sanitary Inspector who is also Inspector of Fish at the Fish-wharf, and Inspector under the Canal Boats Acts.

It is, of course, impossible for the single inspector to board all vessels immediately after arrival, but with the information derived from the Custom Authorities, Coastguard and the Pilots, the present system works well in practice.

The Sanitary Administration of the Port was specially investigated in April by Dr. Manby, this inspection being part of a general survey made by the Local Government Board as to the measures to be taken to prevent the importation of cholera into England.

The first line of defence against the importation of cholera into Great Yarmouth is formed by the Pilots and the Gorleston watchmen, and it was owing to their co-operation and assistance that it was possible to carry out the elaborate preventive measures without delay to shipping.

The Harbour-master (Capt. Bammant) issued the following notice to Pilots:—

In view of the prevalence of cholera in certain Continental Ports, Pilots bringing vessels into the Port of Great Yarmouth are requested to assist the Port Sanitary Authority by carrying out the following directions:—

(1.) All unknown vessels coming from Foreign to be hailed *before* boarding, and enquiries to be made as to:—

(*a*) Port of departure and ports touched at during voyage.

(*b*) Any sickness on board.

(2.) Vessels coming from Baltic Ports with sickness on board, and all vessels coming from *
or should not be boarded, but should

*The names of infected Ports varied at different times.

be directed to moor at the Mooring Station one mile S.S.W. of Gorleston Pier; the Pilot should then return to shore and report (by telephone No. 59) to the Medical Officer of Health at Town Hall, between the hours of 9.30 a.m. and 5.15 p.m. on week-days (Saturdays 9.30 a.m. — 1.0 p.m.) At all other times the Pilot should report (by telephone No. 252) to the Medical Officer's residence.

NOTE.—Delay to shipping will be avoided if these regulations are carried out, as vessels from infected ports are liable to be sent out of the Haven to the Mooring Station by the Officers of Customs unless the Master is in possession of a certificate of freedom to proceed, signed by the Medical Officer of Health or his deputy.

Owing to these arrangements, which were faithfully carried out by all concerned, I was able, without delay, to board every vessel coming from an infected or suspected port before entering the Haven. Before such vessels, eight in number, were allowed to proceed into the Haven full investigations were made as to the health of all persons on board, and as to the sanitary state of the vessel, the existence of suspicious cargo, and more especially the water supply.

Owing to the continued existence of cholera in St. Petersburgh these arrangements are still in force, and will be continued as long as they are necessary.

Sickness in the Port.

June 28th.—The Norwegian s.s. "Dag" was disinfected at the captain's request, in consequence of the occurrence of several cases of Typhoid Fever amongst the crew before arrival in the Haven.

July 7th.—The lugger "Daisy Bell," Y.H. 577. The cook was suffering from Diphtheria and was removed to the Isolation Hospital. The vessel and the man's effects were fumigated and cleansed.

November 3rd.—French lugger "St. Louise," F. 1392. One of the crew reported sick. He was found to be suffering from Rheumatic Fever and was removed to the General Hospital.

November 4th.—Lugger "Fame," Y.H. 854. One of the crew suffering from Typhoid Fever. The man was removed to the Isolation Hospital, and the vessel, and patient's clothes and effects were cleansed and disinfected.

November 4th.—Steam drifter "Uberous," I.N.S. 405. One of the crew suffering from Typhoid Fever. The man was removed to Hospital, and his clothes and effects were disinfected.

Inspections made in 1908. The number of vessels inspected on entering the port was as follow :—

	Number inspected.	Number reported to be defective.	Number of orders issued
FOREIGN—			
Steamers	154	26	23
Sailing	98	4	4
Fishing	8	1	1
Total from Foreign Ports ...	260	31	28
COASTWISE—			
Steamers	120	7	6
Sailing	17	4	3
Fishing	75	8	7
Total from Coast Ports ...	212	19	16

These vessels were of the following nationalities :—

British	231
Norwegian	98
Swedish	62
German	26
Dutch	16
Russian	12
Danish	14
French	3
Belgian	10
Total	472

The following list shows the nature of the defects reported in the previous table :—

Dirty forecastles or deck houses . .	25
Forecastles to re-paint or limewash . .	8
Defects in sanitary arrangements . .	2
Dirty fore-peaks	4
Defects in ventilation	1
Filthy w.c's.	6
Foul ship's holds	2
Suspicious drinking water . .	2

These defects necessitated re-inspection in most cases.

Bilge Pumping on Fishing Vessels. — Bills were posted, and handbills were distributed on board the fishing craft coming south for the Autumn fishing, drawing attention to the above offence. No serious breach was committed in this respect.

Work under the Canal Boats Acts.

During the year 58 boats were inspected by the Inspector under the Canal Boats Acts.

One vessel was found to require re-painting of the cabin, this matter, the Inspector was informed, was to receive attention in the autumn.

On seven boats the masters had not a copy of the registration certificate aboard, and on six boats there were no registration marks. All these technical infringements of the Acts are invariably attended to quite readily, upon notice being given to the owners.

The total number of vessels registered under the Acts still remains 57, as many vessels which would otherwise be registered under the Canal Boats Acts are now registered by the Board of Trade.

One vessel registered under the Canal Boats Acts by the Great Yarmouth Registration Authority has changed ownership during the year, the registration being duly endorsed and fresh certificates granted to the new owner.

No cases of sickness occurred on the vessels registered under these Acts.

The sanitary condition of our local river craft is still well maintained, and is very creditable to the men working in them.

Meteorological Records for 1908.

One of the principal official telegraphic reporting stations of the Meteorological Office has been in existence at Great Yarmouth for a considerable number of years, but the position of the instruments was not quite satisfactory, and the station was completely re-organised at the commencement of 1908.

In previous years all the instruments were placed in the Sailors' Home on the Drive. After careful consideration of all possible sites, in order to obtain the most accurate results, the thermometers and rainguage have now been placed in an open square at the east end of Trafalgar Road, the barometers are placed in the Coastguard Building, with a barograph in the Town Hall, a new recording windguage has been erected on the South Pier at Gorleston, and the Campbell-Stokes sunshine recorder is placed on a column at the south-east corner of the Wellington Gardens. This somewhat scattered distribution of the various instruments is not so inconvenient as it might appear at first sight, as all the records, with the exception of sunshine, are taken by the Coastguard, who also carry on the work of reporting to the Meteorological Office by telegram, at 7 a.m. and 6 p.m. daily.

The Director of the Meteorological Office placed the sunshine-recorder in position, and inspected the location of the other instruments, so that they may be taken to be in the best possible positions for obtaining accurate results.

At the request of the Corporation, three additional instruments were installed, namely, a Campbell-Stokes sunshine recorder and two earth thermometers, additional records of great value being now available for the first time.

The official records appear in the various publications of the Meteorological Office, which may be consulted in the Public Library; telegrams are also sent to the principal newspapers during the greater part of the year. The cost to the local ratepayers does not exceed ten pounds a year, excluding the cost of transmission, which is calculated at Press rates, and amounts to about £35 per annum, for the publication of the weather reports in seven daily papers directly, and in many others indirectly through the Weather Bureau.

THE WEATHER IN 1908.

Cold and wet weather prevailed during the first four months of the year, but in May and June it was warm and pleasantly sunny. The latter half of the year was dry and warm, more especially in October, when the temperature was more than 4° above the average, the sunshine recorded in the same month being 43 per cent. of the possible maximum. The mean temperature throughout the year was above the local average, and maximum temperatures of 80° in the shade were recorded on two occasions. The rainfall during the first five months was above the average, but the total rainfall for the year was deficient owing to the drought which prevailed during the last seven months (excluding August). The hours of sunshine recorded amounted to 1,712, or 39 per cent. of the theoretically possible maximum. As sunshine was not recorded in previous years, it is not possible to make any local comparison, but the percentage of 39 compares favourably with that at all other stations, with the exception of certain stations on the South Coast, where the percentages varied between 41 and 44. The prevailing winds were west and south-west. Gales were recorded on 23 occasions, and dead calms on 14 occasions.

RAINFALL IN 1908.

The total precipitation, including rain, snow and hail, was 22½ inches, nearly three inches below the local average for the past thirty years. Rain fell on 144 days, snow on 19, and hail on 10 days. The most rainy day of the year was August 22nd, on which day 1.04 inches were collected.

Month.	Number of rainy days.	Total fall (including snow and hail).	Difference from average.	Most in one day. Amount.	Most in one day. Date.
JANUARY	15	0.83	−0.79	0.13	6th
FEBRUARY	20	1.93	+0.40	0.31	17th
MARCH	20	2.46	+0.82	0.40	1st
APRIL	17	2.61	+0.97	0.75	23rd
MAY	14	1.85	+0.07	0.40	13th
JUNE	9	0.97	−0.93	0.21	12th
JULY	11	2.53	−0.12	0.67	13th
AUGUST	14	2.83	+0.40	1.04	22nd
SEPTEMBER	15	1.88	−0.53	0.46	21st
OCTOBER	10	1.44	−1.47	0.45	9th
NOVEMBER	13	1.63	−1.07	0.35	21st
DECEMBER	15	1.56	−0.55	0.35	11th
Total	173	22.52	−2.8		

TEMPERATURE IN 1908.

The mean temperature for the whole of the year was 48.7°, 0.6° above the average for the past thirty years. The lowest temperature was 23°, recorded on January 5th. The hottest days of the year were July 30th and August 3rd, when maximum temperatures of 80 were recorded.

Month.	Mean of (a) Minimum.	Mean of (b) Maximum.	Mean of (a) & (b).	Difference from average.	Absolute Minimum and Maximum. Min.	Date.	Max.	Date.
JANUARY	32.6°	41.2°	36.9°	−0.7	23°	5th	55	27th
FEBRUARY	34.7°	45.2°	40.0°	+1.7	30°	29th	51	6th & 21st
MARCH	33.6°	44.2°	38.9°	−1.6	29°	27th	54	8th
APRIL	38.0°	47.3°	42.7°	−2.1	32°	23rd & 25th	58	30th
MAY	47.7°	59.6°	53.7°	+3.7	41°	4th	74	17th
JUNE	51.7°	62.5°	57.1°	+0.5	43°	9th	70	11th
JULY	54.9°	66.1°	60.5°	−0.2	47°	5th & 8th	80	30th
AUGUST	52.9°	66.1°	59.5°	−1.0	45°	12th	80	3rd
SEPTEMBER	49.3°	62.3°	55.8°	−1.1	37°	14th	71	7th
OCTOBER	49.3°	58.7°	54.0°	+4.4	37°	25th	74	4th
NOVEMBER	41.4°	50.0°	45.7°	+2.0	32°	21st	57	12th
DECEMBER	36.1°	42.6°	39.4°	+0.8	25°	29th & 30th	50	15th

SUNSHINE RECORDED IN 1908.

Month.		Duration in Hours.	Percentage.
JANUARY	...	72	29
FEBRUARY	...	68	24
MARCH	...	125	34
APRIL	...	161	39
MAY	...	228	47
JUNE	...	239	48
JULY	...	217	44
AUGUST	...	207	46
SEPTEMBER	...	162	43
OCTOBER	...	140	43
NOVEMBER	...	72	28
DECEMBER	...	21	9
	TOTAL ...	1712	39

WIND-GUAGE RECORDS.

A new recording anemometer was installed at the beginning of 1908. The instrument is placed on Gorleston Pier, and is well worth inspecting, as it traces a continuous record of the force and travel of the wind with great accuracy.

Month.	Prevailing winds.	Wind.-force. Gales.	Calms.
JANUARY	S.-W. & W.	5	2
FEBRUARY	W. & S.-W.	5	0
MARCH	W., S. & E.	4	1
APRIL	N.-E. & N.	1	0
MAY	S.-W. & N.-E.	1	1
JUNE	N. & N.-E.	0	0
JULY	S.-E. & W.	0	0
AUGUST	W. & N.	1	0
SEPTEMBER	W. & S.-W.	1	0
OCTOBER	S.-E. & E.	1	4
NOVEMBER	W. & S.-W.	1	3
DECEMBER	S.-W., S. & W.	3	3